

SPARK GAP

Vol. 33, Issue 1, January 2016 *MARC - Serving Central Indiana Communities for thirty-three years*

We made it thru 2015 – Welcome 2016!!

Hope everyone had a good Holiday Season and Santa brought you what you asked for. Please mark your calendars for Feb 13th for the one day tech license review. We would like to see MARC club members there to show their support. It will be held at White River Fire Department Station 53 located at 850 S. Mullinx Road in Greenwood, just off Smith Valley Road and SR37. We will start at 8am and go until noon with testing starting at noon or close to it.

I would like to thank everyone that brought something to eat to our December meeting. All the food was great and I hope that everyone enjoyed the White Elephant exchange. I know I did! Something fun and different for the club.

With the New Year we have lots of things that we need to mark on our calendars. We have Strawberry Fest which is normally the first week-end in June but as of right now, I don't have a confirmed date. Field Day is June 25th and 26th. Heartnut the first part of September and the Greenwood Band contest the end of September.

January's club meeting will include a presentation by Tony Tolbert, W9AMT. He will talk about DMR and how it's transforming Amateur Radio. What is DMR, you ask? DMR, or Digital Mobile Radio, is an open source standard for TDMA (Time Division Multiple Access) digital communications. Originally designed for the commercial market, DMR, also known as Motorola© MotoTRBO™, was adopted by the amateur community in 2009 with the intent of building a worldwide IP linked repeater network. Since then, the network has grown to over 400 repeaters and over 11,000 users worldwide in over 30 countries. The first DMR repeater in Indiana was established in 2011 with the intent of bringing this widely popular and rapidly growing technology to the local amateur radio community. Just 4 years after its inception Hoosier DMR has grown exponentially providing coverage in several densely populated areas throughout the state. The talk groups connect Indiana DMR users with fellow enthusiasts locally, regionally, nationally, and internationally. Hoosier DMR welcomes all interested licensed amateur operators to experience the power of the DMR technology and utilize the open system. To learn more about becoming a DMR-MARC user, please visit the website at www.hoosierdmr.net

The officers will be looking at ways that we can bring back old members, work on getting new members and keeping the current members. We will be discussing topics that the club might like to have presented. If you have any topics that you would like to see presented, please let us know.

With the New Year, Club dues are due. Please see Cy Young, N9CHY, about getting dues current for 2016.

Hope to see you Saturday. The coffee will be on.

Jacki, KI6QOG
President



Birthday's for the month of January:

KD9ALA - Ken Barr

KD9BHM - Marlys Barr

KC9WLF - Jim Busch

KB9BVN - Brian Murrey

+++++

Texas Ham Becomes First to Confirm 100 NPOTA Units

TAGS: 100th anniversary, accomplishment, air, ARRL Media, ARRL's Logbook, feet, Kutzko, KX9X, lotw, National Park Service, NPOTA units, parks, process, public, Relations Manager Sean, Texas, year-long operating event

Larry Burke, K5RK, has jumped into the ARRL's National Parks on the Air (NPOTA) year-long operating event with both feet. Burke, of Alvin, Texas, became the first to confirm 100 NPOTA units. The accomplishment took him less than 10 days.

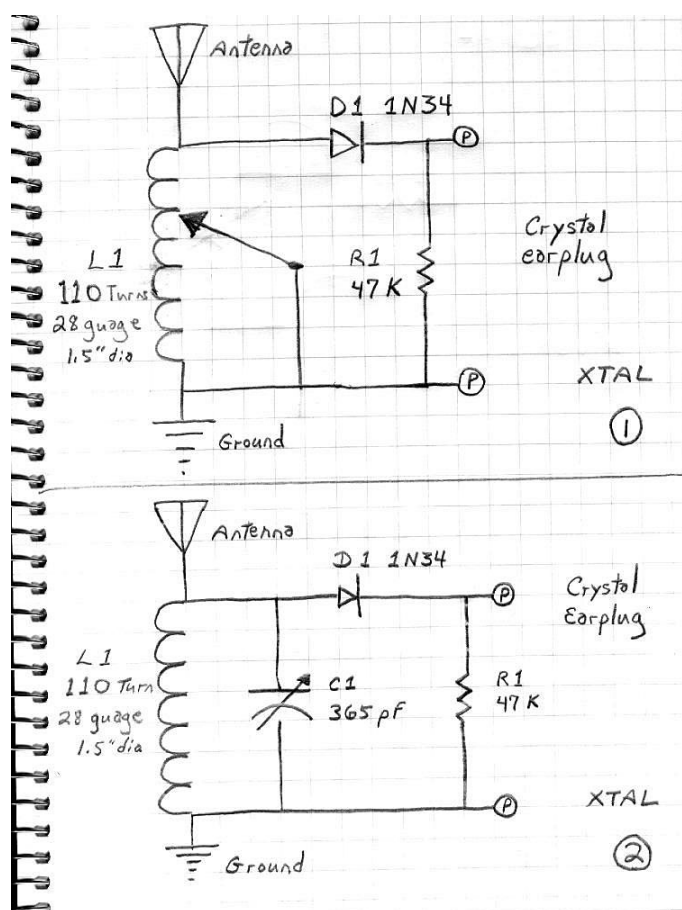
"It speaks volumes, not only about Larry being a dedicated chaser," ARRL Media and Public Relations Manager Sean Kutzko, KX9X, said. "That there are over 100 different NPOTA units activated in just over a week is pretty amazing!"

Throughout 2016, Amateur Radio will help the National Park Service to mark its 100th anniversary. In the process, hams ("Activators") from across the country will activate NPOTA units, promote the National Park Service, and showcase Amateur Radio to the public. "Chasers" like Burke will attempt to work as many NPOTA units as possible.

The ARRL's Logbook on The Air (LoTW) is being use to record and confirm contacts among Activators and Chasers.



AS SIMPLE AS IT CAN GET ---- CRYSTAL RADIO ---- LOW TECH



The radio in diagram 1 uses a variable inductor (coil) for tuning. The radio in diagram 2 uses a variable capacitor for tuning. Both radios are otherwise the same. The coil consists of 110 turns of 28 gauge enameled magnet wirewound on a 1.5" form. (toilet paper tube is easiest to get, but you can use something like plastic or other non-conductive material- hollow is best. D1 is a common 1N34 germanium diode- this is the detector. The crystal earplug is not the same thing as one would commonly find at your electronics parts store. This is an high impedance earplug- very sensitive. You can get these from Crystal Radio Society or from Antique Electronic Supply. If you are going to build the radio in diagram 2 you will need the variable capacitor- If you cannot find one in an old junk radio then you can purchase one from either of the two suppliers above. The 47K resistor will load the circuit so that the sound from the earplug will not be distorted. If you are going to use a high impedance headset instead of the earplug then omit the resistor and instead use a .001 uf capacitor. For the variable inductor you will carefully remove the enamel insulation from the top of the coil with fine sandpaper (just until the bare copper is showing) Then a "wiper" can be fashioned from a large paper clip or stiff wire. By moving the "wiper" across the windings you will be electrically changing the inductance of the coil. This is how you will do your tuning. The antenna can be a length of any kind of wire 10' or longer. You should experiment with the antenna length. Ground the crystal radio to a cold water pipe or other known ground. Now, depending on where your local AM stations are located you should be able to hear one or more stations from the earplug. When listening at night you will usually be able hear many more stations as the radio waves skip off of the atmosphere. (sky wave propagation)

More crystal radio plans at : http://journeytoforever.org/edu_xtal/XTAL.HTM

HELP NEEDED FOR UPCOMING EVENTS

**Ham Radio Volunteers are needed in all the public served events that we support.
These are:**

May 7 - 500 Festival Mini Marathon

May 28 - 500 Festival Parade

Jun 4 - American Diabetes Tour-de-Cure Bike Ride

Aug 1 - Indy Air Race

Sep 10 - Multiple Sclerosis Bike Ride

Oct 1 - Indianapolis Marathon in Lawrence

Nov 7 - Indianapolis Monumental Marathon

Contact is Mike Palmer, N9FEB ---- N9FEB@comcast.net

**Michael R. Palmer, N9FEB
Marion County IN Events Coordinator for Ham Radio
7461 Hague Rd., Indpls, IN 46256
(317) 849-3602 home
(317) 753-8691 cell
www.IndyHams.org**

M.A.R.C. Technician Licensure Review Session

The Mid-State Amateur Radio Club will be offering a Technician Licensure review session. The session is scheduled for Saturday morning, February 13 (from 8:00 am until about 11:30). The session will be held at the White River Fire Station #53 (Smith Valley road and Route 37). There is no charge for this review session. Coffee and refreshment will be available.

It is recommended that interested individuals obtain and study the most current version of the ARRL Technician Study Manual (third edition) or one of the other current study guides available. Additional study information is available by check the club website (www.Midstatehams.org) and clicking on "ham class" (left hand column). Several resources for preparing can be found there including practice test sites based on actual questions from the test pool.

It should be emphasized that this is a review session not an instructional class. Participants will need to study and bring questions about material they don't understand and/or want to discuss in more depth. In addition, some time will be spent doing practice tests to help pin point areas of strength and weakness. There will be a team of licensed ham operators to assist in this discussion.

Following the completion of the session the actual FCC test will be administered to those interested (check our website for hint in taking tests). It consists of 35 multiple choice questions, which requires a score of 75% to pass. Those taking the test will know if you passed before leaving that morning. However, if a participant feels that he/she needs more study time, the FCC test can be taken at the Mid-State Amateur Radio Club meeting the following Saturday, February 20. Please be aware that there is a \$15.00 administrative fee for all FCC examinations.

Interested individuals wishing to register or those with questions may do so by contacting Bruce J. Tisdale (K9ICP) at VicePresident@Midstatehams.org.

GlobalSET 2015 is a Wrap, with Lessons Learned

More than three dozen countries took part in the 2015 Global Simulated Emergency Test (GlobalSET) last month, organized by IARU Region 1 and designed in part to measure the disaster readiness of Amateur Radio. IARU Region 1 Emergency Communications Coordinator Greg Mossop, G0DUB, pointed out that the 2015 event differed from other GlobalSETs held since 2006, which emphasized message handling and setting up stations in the field.

“The IARU emergency communications coordinators decided that the best way to achieve this would be to have an availability or ‘call-out’ exercise,” Mossop said. “It asked all countries with emergency communications groups to contact their members and ask them how quickly they could get on air if required.” The start of the exercise was not announced in advance but propagated through a variety of channels, including e-mail and social media. IARU regional coordinators chose December 18 as being clear of most social and cultural events. A time limit of up to 48 hours was set for potential responding organizations to complete the local callout exercise and submit results via a web form.

Mossop estimated that 10 times more radio amateurs took part in GlobalSET 2015, with a few groups returning after a few years absence.

The exercise aimed to demonstrate that radio amateurs can respond quickly and in a coordinated manner, as well as to involve groups and IARU member societies in an event without concern for language, time, or propagation barriers.

Another goal of GlobalSET 2015 was to update information on how many radio amateurs around the world would be available in an emergency.

Advance publicity had sought to explain to new GlobalSET concept, Mossop noted. The web reporting form was aimed at overcoming language barriers through freely available online translation tools, making it easier for emergency coordinators to complete. As it turned out, the survey and the GlobalSET itself confounded a few, who later said they either did not read the reporting instructions or sent the form to other individuals else to complete.

The survey collected data from national emergency communication groups about their organization's response, asking them to identify their members' overall availability, those immediately available to respond, others needing to obtain supplies before responding, and those having commitments that needed to be cleared.

The survey results covered an estimated 8466 members worldwide, of which 2048 reported they could be available in less than 1 hour.

“This exercise occurred on a normal business day in many countries,” Mossop said. “An availability rate of 20-30 percent of stations is very good and does seem reasonable as a planning assumption for future exercises.”

On the other hand, he said, the survey failed to elicit a complete response from some countries; for example, in the US, emergency coordinators in only 14 states answered the call. Mossop said the exercise identified a need to revise or improve alerting procedures. “Where possible a mixture of methods should be used for alerting members with automatic feedback of message delivery or the response,” he said, adding that reliance on any single system, such as e-mail, was not the best approach.

Mossop said GlobalSET 2015 produce good data to support the need for Amateur Radio spectrum and demonstrate that radio amateurs are ready to respond when needed. -- Thanks to Jim Linton VK3PC

..... ARRL News January 2016

Chasing DX

Across

1. Old freq. units
4. HH-land
9. Fourteen ____ (weight)
14. Enable, as a weapon
15. Over
16. Signs
17. Expected
18. John Glenn's ride
19. "that ____ for the course"
20. With 22, 55, 56, and 61 across - What you collect for 35 across
22. See 20-across
23. The 18 and 21 MHz bands?
24. "Is that really necessary?"
26. New fangled rigs (abbr.)
27. Work on GUIs and others
30. This began, the July after 24-down
31. An ARRL section official, in 1-land (abbr.)
33. All but KH6 and KL7
35. You need more than 999 for this award
38. Power units
39. One of the things Elmers do
40. School org.
41. One place where the DX might be listening?
42. Heading 180 from NC
46. 9H operator, probably
49. Early radio parts manufacturer
50. 1960's TV host, with Martin
51. Open wire (line)
54. Equipment reviewer, sometimes
55. See 20-across
56. See 20-across
57. What many towers are made of

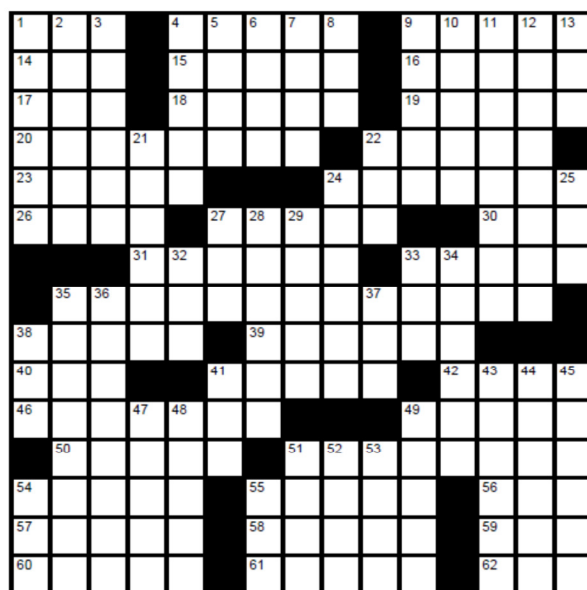
58. The word that explains a UK prefix assignment
59. Digital ckt. family
60. Hamshacks, on Field Day
61. See 20-across
62. Beam heading to work PY from W2

Down

1. "... no space ____."
2. Trimmed, as a dipole (if not a bush)
3. It moves with a signal
4. What an amp also does in the shack
5. Prefix with VOX
6. What an un-keyed transmitter is
7. Some are green, some black, some orange
8. Gives a callsign
9. Nickels and dimes
10. Org. in charge of 43-down
11. What a DXpedition station spends most of the time doing
12. Non-digital, in G-land

13. DOS background job (remember?)
21. Non-ham pesky visitor on FD
22. C in F-land
24. A peak year in cycle 19
25. Some Ukraine prefixes
27. It's between the DSP and the speaker
28. How some DF antennas look
29. Listings for selling small VHF xcvrs
32. MHz predecessor
33. Those in Chile
34. House current, familiarly, if imprecise
35. Like 38-down, but for (other) digital modes
36. Keeps your rig's rock steady
37. A good signal report, in ancient Rome
38. Speed on CW
41. Biggest non-amateur user of radio in the early days
43. Awards for performances by hams in space?
44. Warm tubes and solder resin, among others

45. Pamper
47. What a birdie in your RX sounds like?
48. G-land noblemen
49. Tower-top antenna supports
51. Repeated, it's part of FO0-land
52. 70 city
53. The part of a part you solder
54. Use 3-Down to give out one of these
55. Cute 1960's mobile hamshack





FREE HAM RADIO LICENSE REVIEW

NO CODE REQUIRED

- WHAT:** A one-day review and testing for the technician license, with a Q/A session and practice tests available.
- WHERE** White River Firehouse Station 53
850 S. Mullinix
Greenwood, Indiana.
- WHEN:** Saturday, February 13, 2016
8am-12pm with testing to follow
- HOW:** Contact vicepresident@midstatehams.org
- COST:** **THE REVIEW SESSION IS FREE!**
- MATERIALS:** Students **MUST** purchase **AND** study the ARRL Ham Radio License Manual 3rd Edition (ISBN: 978-1-62595-013-0) before attending the review session.

**MORE INFORMATION AND FREE
RESOURCES AT MIDSTATEHAMS.ORG**

MID-STATE AMATEUR RADIO CLUB, JOHNSON COUNTY, IN

2016 List of Hamfests in Indiana / Convention

☐ **02/13/2016 5th Annual Brownsburg Hamfest**

Location: American Legion Post 331, 636 E Main St, Brownsburg, IN 46112

Sponsor: Hendricks County Amateur Radio Society

Website: <http://www.hcars.org>

☐ **02/27/2016 Cabin Fever HamFest**

Location: La Porte Civic Auditorium, 1001 Ridge St., La Porte, IN

Sponsor: LaPorte County Amateur Radio Club

Website: <http://www.lpcarc.org/>

☐ **02/27/2016 Dugger Hamfest 2016**

Location: Dugger Community Bldg, IN St Rd 54 and Hickam Street, Dugger, IN

Sponsor: Dugger Amateur Radio Club

Website: <http://www.facebook.com/groups/550912628262491/>

☐ **03/12/2016 Terre Haute Hamfest**

Location: Clay County 4-H Fairgrounds 6650 N State Road 59 Brazil, IN

Sponsor: Wabash Valley ARA

Website: <http://www.w9uuu.org>

☐ **04/16/2016 North Central Indiana Hamfest**

Location: Miami County 4-H Fairgrounds, 1029 W 200 N, Peru, IN

Sponsor: Cass Co. ARC, Miami Co. ARC, Grant Co. ARC, & Kokomo ARC

Website: <http://nci-hamfest.net>

☐ **05/20-21-22/2016 Dayton Hamvention**

Location: HARA Arena, Dayton, OH

Sponsor: Dayton Amateur Radio Association

Website: <http://hamvention.org>

☐ **09/17/2016 Bloomington ARC Hamfest**

Location: Monroe County Fairgrounds, 5700 West Airport Road, Bloomington, IN 47401

Sponsor: Bloomington Amateur Radio Club

Website: <http://www.bloomingtonradio.org>

☐ **11/12/2016 Indiana State Convention**

(Fort Wayne Hamfest & Computer Expo)

Location: Allen County War Memorial Coliseum, 4000 Parnell Avenue, Fort Wayne, IN 46801

Sponsor: Allen County Amateur Radio Technical Society

Website: <http://www.fortwaynehamfest.com>

ANSWERS:

C	P	S		H	A	I	T	I		C	A	R	A	T
A	R	M		E	N	D	E	D		O	M	E	N	S
D	U	E		A	T	L	A	S		I	S	P	A	R
E	N	T	I	T	I	E	S		O	N	A	L	L	
T	E	E	N	S					M	U	S	T	Y	O
S	D	R	S		D	O	H	C	I		I	G	Y	
				E	M	A	S	T	M		C	O	N	U
			D	X	C	C	C	H	A	L	L	E	N	G
W	A	T	T	S		A	D	V	I	S	E			
P	T	A			U	P	S	I	X		T	O	S	C
M	A	L	T	E	S	E				M	E	S	C	O
	R	O	W	A	N		B	A	L	A	N	C	E	D
R	A	V	E	R		M	O	D	E	S		A	N	D
S	T	E	E	L		G	R	E	A	T		R	T	L
T	E	N	T	S		B	A	N	D	S		S	S	E

MID-STATE AMATEUR RADIO CLUB

The Mid-State Amateur Radio Club meets the **THIRD SATURDAY** of each month in the basement of the Johnson County Law Enforcement Center, Conference Room 1111 Hospital Road, Franklin, Indiana 46131.

See our website, www.midstatehams.org, for maps on how to get to our meeting.

Everyone is welcome; you do not have to be a *HAM* to attend our meetings or a member of the club.

WA9RDF Repeaters:

146.835/
146.235 MHz
(151.4 Hz PL Tone)

WA9RDF Repeater:

443.525/
448.525 MHz
(151.4 Hz PL Tone)

Club Officers:

President: Jacki Frederick – KI6QOG
Vice President: Bruce Tisdale -- K9ICP
Secretary: Rhonda Curtis – WS9H
Treasurer: Cy Young – N9CHY
Repeater Trustee - Chris Frederick – KQ9Y

Weekly Net: Sunday evening 7:00 PM ARES/RACES members and ALL RADIO AMATEURS
146.835/146.235 MHz (151.4 Hz PL Tone)

The Official Newsletter of the Mid-State Amateur Radio Club

P.O. Box 836
Franklin, Indiana
46131

Editor: Robert LaGrange N9SIU

Please send your articles to my email: n9siu@yahoo.com no later than the 3rd of the month

Remember Club Dues for 2016 are due; please see Cy Young N9CHY at the meeting Saturday.

